

REMARKS

In reply to the Office Action of July 7, 2008, Applicant submits the following remarks. Claims 1, 14 and 27 have been amended. Support for the amendment to claim 1 can be found at least in the specification as filed at page 2, line 30-page 3, line 4 and in the figures. Applicant respectfully requests reconsideration in view of the foregoing amendment and these remarks.

Objections

Claim 27 was objected to for various informalities. Applicant has amended claim 27 to address the examiner's concerns.

The specification was objected to at page 6, lines 18-21. This paragraph was amended to correct the informality.

Section 102 Rejections

Claims 1-3, 6-7, 10-15 and 17-23 are rejected as being anticipated by U.S. Publication No. 2003/0203210 ("the Graff publication"). The applicant respectfully traverses in light of the amendment to claim 1.

Amended claim 1 is directed to a method of forming an arrangement of barrier layers, comprising modifying at least a portion of a second surface of a first ceramic barrier layer to introduce first nucleation sites on the second surface and forming a second ceramic barrier layer directly on the second surface of the first ceramic barrier layer without continuing all defects of the first ceramic barrier layer, wherein the second ceramic barrier layer is initiated at the first nucleation sites.

The Graff publication is directed to multi-layer barrier coatings that include alternating polymer and inorganic layers (Abstract). The surface of each deposited inorganic layer can be plasma-treated prior to the deposition of the polymer layer thereon. A foundation stack 20 include a foundation barrier layer 22 and an organic layer 24 (FIGS. 1A and 1B; paragraph 42). Barrier stacks 30 include a barrier-stack barrier layer 32 and an organic layer 34. The foundation barrier layer 22 is formed of aluminum oxide and can be plasma-treated (paragraph 73). The plasma treatment removes contaminants, dehydrates, and modifies the effective surface area and

density of the treated prior to deposition of the organic layer 24. The barrier stack layer 32 includes one or more sequentially deposited plies of inorganic material (paragraph 79). The multiple plies may compensate for defects in one layer being blocked by a next layer. After the entire barrier stack layer 32 is formed, the layer 32 can be plasma treated and an organic layer 34 deposited thereon (paragraph 80). See also paragraph 88 and FIGS. 4A and 4B, which describe only plasma treating an inorganic ply prior to monomer deposition.

The Graff publication fails to suggest or disclose modifying at least a portion of a second surface of a first ceramic barrier layer to introduce first nucleation sites on the second surface and forming a second ceramic barrier layer directly on the second surface of the first ceramic barrier layer without continuing all defects of the first ceramic barrier layer. Moreover, the Graff publication fails to suggest or disclose a modification that introduces first nucleation sites so that a second ceramic barrier layer can be formed without continuing all defects of the first ceramic barrier layer. Rather, the Graff publication plasma treats a ceramic layer and forms an organic layer thereon. For at least this reason, applicant submits that the Graff publication does not anticipate claim 1 as amended or any of the claims that depend therefrom.

Section 103 Rejections

Claims 24-27 are rejected as being obvious and therefore unpatentable over the Graff publication alone or in view of U.S. Patent No. 6,522,067 “(the Graff patent”).

Each of claims 24-27 depend from claim 1. The Graff patent does not teach or suggest the limitation required by claim 1 as amended and not taught by the Graff publication, that is, modifying at least a portion of a second surface of a first ceramic barrier layer to introduce first nucleation sites on the second surface and forming a second ceramic barrier layer directly on the second surface of the first ceramic barrier layer without continuing all defects of the first ceramic barrier layer. For at least this reason, the applicant submits that there is no *prima facie* case of obviousness with respect to claims 24-27 after the amendment of claim 1.

Applicant : Heuser et al.
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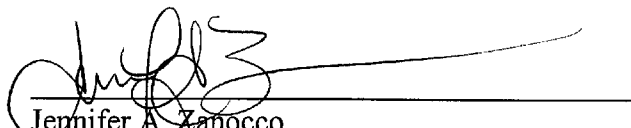
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The one-month extension of time fee in the amount of \$130 is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

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